

REMARKS

Claims 1, 2 and 4-17 are pending.

I. Claim Amendments/New Claims

Claim 1 was amended to recite the features originally presented by claim 3 and recite the definition of flexibility, as supported at page 4, line 22.

Claim 3 was cancelled.

Claim 4 was amended to recite the definition of flexibility, as supported at page 4, line 22.

Claim 7 was amended to recite the lid is flexible. It is respectfully submitted an EPOL (easy peel off lid or easy pull off lid) is inherently flexible because, if it is not, then it cannot be peeled off or pulled off. This is also illustrated by the description at page 5, line 24. This is different from an easy open end which is rigid.

New claims 12 -17 are supported as are claims 10 and 11, i.e., at page 2 of the present specification.

Other claims have been amended to be in compliance with U.S. practice. No new matter has been entered.

II. Specification

The specification stands objected to for (1) lacking a "Brief Description of the Drawings" section and (2) making reference to the claims. In response, the specification has been appropriately amended. No new matter has been entered.

Fig. 2 shows a photograph of prior art LE CARRÉ cans filled and sealed according to the prior art. LE CARRÉ cans are prior art cans which may be very flexible as explained at page 1, fourth and fifth paragraphs. Thus, Fig. 2 illustrates one of the shapes of cans that can be made according to the present invention as supported at page 7 of the present specification. Cans of the present invention may be LE CARRÉ cans, or other suitable cans, if their preparation is changed to include the method of the present invention as supported at page 7 of the present specification.

III. Claim Objections

Claim 6 stands objected to for informal matters. In response, the claim has been amended in accordance with the Examiner's suggestion.

IV. 35 USC § 112

Claims 3 and 4 stand rejected under 35 USC § 112, first paragraph, as allegedly failing to be fully enabled by the specification. The Office Action asserts the specification fails to provide a unit of measure for flexibility. Applicants respectfully submit that the term "flexibility" is adequately defined by the present specification, for example, at page 4, lines 10-33.

Therein flexibility is defined as "as the gradient $\frac{\Delta V}{\Delta P}$ of the flexibility line in the interval between $\Delta V = -10$ ml and $\Delta V = 10$ ml." Thus, flexibility is expressed as volume over pressure, and as the specification describes volume in mL and pressure in bar, one of ordinary skill in the art would have understood flexibility, as used herein, to have units of mL/bar.

However, in the interests of advancing prosecution, the definition has been added to the claims.

No new matter has been entered.

V. 35 USC § 102

Claims 1, 6, and 10 stand rejected under 35 USC § 102(b) as allegedly being anticipated by Emberger et al. (U.S. Patent No. 5,958,487). However, in light of the amendments to the claims, reconsideration is respectfully requested.

The Office action failed to detail what it was relying upon in Emberger et al. However, it appears it is relying on the disclosure at col. 1, lines 62-65, of putting, compression molding meat material and sauce or gravy to a shaped article and the latter is fed in an at least surface-frozen state into the packing material. Col. 1, lines 7-8 discloses the pack can be a shell pack, tin can, film pack, etc.

Specifically, claim 1 (from which claims 10 depend), now recites the subject matter of previous claim 3. Thus, as Emberger et al. neither teaches nor suggests a flexibility of at least 25 mL/bar, Applicant respectfully submits the present claims are allowable over Emberger et al.

In fact, there is no disclosure that the can of Emberger et al. is flexible at all. Fig. 2d of the reference suggests the presence of stiffening ribs on the walls of the cans to be filled 30 and therefore, these are not of the flexible type.

New claims 12, 14 and 16 further distinguish over Emberger et al. Specifically, claim 12 recites the same subject matter as claim 10, with the first element of the *Markush* group removed. Specifically, while claim 10 recites “using a partly frozen filling,” claims 12, 14 and 16 do not. As Emberger et al. fails to teach or suggest, alone or in combination with any other cited reference, any of the features added by claims 12, 14 and 16, Applicant respectfully submits that claims 12, 14 and 16 are allowable over the cited art.

VI. 35 USC § 103

A. Claims 2, 7 and 11

Claims 2, 7, and 11 stand rejected under 35 USC § 103(a) as being unpatentable over Emberger et al. in view of Heyn et al. (U.S. Patent No. 5,125,528). The Office Action cites Heyn et al. for a teaching of an easy pull-off seal type lid. However, as Heyn et al. fails to cure the deficiencies of Emberger et al., as discussed above, reconsideration is respectfully requested.

The amendment of Claim 1 moots the rejection of Claim 2.

Claim 7 is a second independent claim, wherein the flexibility is provided entirely by the lid. In this particular case, the cup is not flexible, and the flexibility (“the breathing space”) is provided by the easy pull-off seal-on lid. Although the claim defines the can as rigid, rigid character only relates to the metal cup. The use of a seamed easy open end on a rigid can is already known and disclosed as such in the description (page 6, line 15-17). The underpressure in the rigid can allows the application of such lids in such cans and to process such cans in straightforward and large scale heat processes without the increased risk of failure.

A lid such as an EPOL can be particularly sensitive to over-pressure and thus may give a risk of failing during a conventional sterilisation procedure. One method of improving the

survival rate of cans fitted with EPOLs is applying a carefully controlled sufficient external counter pressure during the sterilisation process to reduce or compensate the over-pressure experienced by the can. The invention of the present claims achieves the same result without requiring the application of such counter pressure. In conventional continuous sterilisation processes, e.g., a hydrostatic process, the way of supplying additional counter pressure is by adding more stages to the installation, which is complicated and expensive.

In contrast, the method of the first embodiment of the present invention thus makes it possible to sterilise large amounts of flexible type cans having a flexibility of, e.g., more than 25 mL/bar in a continuous hydrostatic sterilisation process without requiring expensive additional stages to be included in the installation.

The method of the second embodiment of the present invention (independent claim 7) thus makes it possible to sterilise large amounts of rigid cans having increased strength and a flexibility of, e.g., less than 20 and fitted with an easy pull off lid in a continuous hydrostatic sterilisation process without requiring expensive additional stages to be included in the installation.

New claims 13, 15 and 17 further distinguish over the Emberger et al. in view of Heyn et al. Specifically, while claim 11 recites "using a partly frozen filling," claims 13, 15 and 17 do not. As the combination of Emberger et al. and Heyn et al. fails to teach or suggest any of the features added by claims 13, 15 and 17, Applicant respectfully submits that claims 13, 15 and 17 are allowable over the cited art.

B. Claims 5, 8 and 9

Claims 5, 8 and 9 stand rejected under 35 USC § 103(a) as allegedly being unpatentable over Emberger et al. in view of Kamperman et al. (U.S. Patent No. 6,213,337). Applicants note Kamperman et al. is an equivalent of EP 1005428 discussed on page 1 of the present specification.

The presently claimed invention relates to a can which is filled, and in which an underpressure is present in the closed can. According to the present claims, the can is made of a metal cup, not a foil, with a lid to close it.

While a foil packaging is flexible, it is commonly known in the art that it is physically impossible to create an underpressure in a foil packaging. If such a situation would occur, the packaging would shrink accordingly, until the packaging and the contents form a fully contiguous combination. Thus, any reference relating to foil packaging are non-analogous art as they cannot solve the problems addressed by the present invention.

In the present invention, a metal cup is formed, which cup can be a le Carré can or another can. In Kamperman et al., Figure 5 shows the can is able to withstand a volume change of about 6%. The figure does not disclose any values beyond that volume change, so the document does not teach the skilled person that this type of can would withstand a volume change of 7.5% or more.

Moreover, the can in Kamperman et al. is empty (Col. 4, line 65). In contrast, the can of the present claims is both closed and filled. The essential difference is that the contents of the can help withstanding the underpressure, because the walls touch the contents. As a result of the underpressure in the closed can according to the presently claimed invention, the pressure increase during the heat treatment can be such that the maximum pressure in the can during that process does not cause the lid to come off.

Also, the can of Kamperman et al. is equipped with a lid, seamed onto the can (see figure 1 and 2). There is no teaching in Kamperman et al. which would lead the skilled person to apply an easy pull-off seal on lid to the can, as this combination would not survive an autoclave treatment. According to the presently claimed invention, it is possible to use an over-pressure sensitive lid in spite of the heat treatment that would by industry prejudice necessarily cause over-pressure which would lead to failure of such over-pressure sensitive lid because of the use of a flexible can. This does not include a foil packaging, because in a foil packaging there is no metal cup, and it is not possible to create an underpressure in a foil packaging as explained above.

VII. Conclusion

Applicants respectfully submit this Amendment overcomes each pending rejection/objection. Thus, a Notice of Allowance is requested.

If any additional fee is necessary to make this paper, or any paper filed herewith, timely and/or complete, such fee may be deducted from deposit account no. 19-4375.

Respectfully submitted,

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